



# ST-LAB

## Automatic Torque Tester

*for Continuous Thread, Child-Resistant and Tamper-Evident Closures*

### Features

- Real time, automatic display
- NIST traceable calibration procedure
- Strain gauge transducer technology
- Automatic container clamping and closure gripping – adjustable pressure
- Adjustable torque application speed
- 180 degree chuck rotation
- Heavy duty components

### Testing Capabilities

- Applied/Removal Torque
- Peak and Transient Torque
- Container/Closure Fatigue
- Release and Re-apply Torque
- Topload Force *(optional)*

### Cap Torque Importance

- Consumer Safety
- Product Integrity
- Package Appearance
- Customer Satisfaction

### Benefits

- Highly accurate
- Eliminates manual variances
- Fast and easy changeovers
- Ideal for laboratory environments
- Decreases risk of ergonomic injury
- Test and record data in U.S. (lb-in) or S.I. (Nm)

### Accessories

- Portable stand with drawers
- Portable air compressor
- Calibration kits
- Serial port printer
- Personal computer



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## Automatic Torque Tester

### Options

- Custom electrical enclosures
- Light curtain
- Alarms (audio and/or visual)
- Inlet air filter assembly
- Infinite rotation (BLDC speed control)
- Encoder to measure angular degree of rotation
- Special container and closure fixtures
- Additional sets of change parts (collets and clamps)
- Topload force testing capability
- Custom-designed software and hardware
- Base adapter for small containers
- Various start button configurations (optical or push-button)
- Password protection (4 levels)
- Programmable decay time
- Customizable data communication
- Data acquisition
- Emergency stop button
- Training and service



Custom Application

### Our equipment meets or exceeds these standards and methodologies:

- National Institute of Standards & Technology (NIST)
- American Society for Testing and Materials (ASTM)
- Food & Drug Administration's (FDA) Good Manufacturing Practice (GMP)
- Consumer Product Safety Compliance

### Specifications

(subject to change without notice)

Removal torque range:	0-88 lb-in (0-10Nm)
Applied torque range:	0-88 lb-in (0-10Nm)
Accuracy:	+/- 0.2 lb-in for static loads over scale
Repeatability:	+/- 0.2 lb-in for one set up
Calibration:	Certifiable (NIST)
Resolution:	0.1 unit
Maximum overload:	150%
Rotation:	180 degrees
Torque tests:	closure tightening, closure releasing
Torque units:	dNm, Nm, kg-cm, kg-m, oz-in, lb-in
Torque transducer:	Kaliber, 350 Ohm, strain gauge
Control:	Unitronics Vision 120 OPLC
Analog signal acquisition:	14 bit, 100ms
Average response time:	<10ms
HMI display:	128 x 64 monochrome graphical LDC
HMI input:	Sealed membrane keypad with 16 keys
Communication protocol:	RS-232 or RS-485
Real-time clock:	7 year typical battery backup
Air:	60-80 PSI
Power:	120VAC, 1A
Temperature range:	32-122°F (0-50°C)
Dimensions/Weight:	18" x 18" x 24" , approx. 60 lbs.
Materials of construction:	White powder coated aluminum base and enclosure (NEMA 12); Anodized aluminum framework, SS hardware, Delrin/UHMW guides.

### Container Sizes

Maximum height:	13.75"
Minimum height:	2.75" (1.0" if used with base adapter)
Minimum neck diameter:	0.25"
Maximum neck diameter:	5.0"